Reply to Office Action of 18 July 2003

REMARKS

Claim 1 has been amended to specify the unnatural aromatic amino acid, the unnatural

hydroxy containing amino acid and the unnatural basic amino acid. Support of this amendment can

be found at page 21, line 30 - page 22, line 4. Claim 2 has been amended to insert the sequence

identifier for the peptide of general formula I, to clarify that Xaa3 is with respect to the peptide of

SEQ ID NO:5, to clarify that the derivative is a derivative of the peptide of SEQ ID NO:5 and to

specify that the derivative is an amino acid substitution with the specified substitutions. Support for

these amendments can be found at page 7, lines 21-32, page 21, line 30 - page 22, line 4, and page

23, lines 1-4. Claims 1, 2, 8, 9 and 39 have been amended to recite an isolated peptide rather than

a substantially pure peptide. In view of the amendments to claim 2, claims 40 and 41 have been

canceled.

It is submitted that these amendments do not constitute new matter, and their entry is

requested.

The Examiner objected to claim 2 for an informality. It is submitted that the amendment of

claim 2 obviates this objection.

The Examiner rejected claims 2, 9 and 40-41 under 35 U.S.C. §112, first paragraph for lack

of enablement. The Examiner contends that the specification is enabling for derivatives of SEO ID

NO:5 wherein a single amino acid is replaced but not for substitutions at multiple sites. Claim 2 has

been amended to specify that the derivative is "an amino acid substitution of the peptide of SEQ ID

NO:5" in which the amino acid substitution is specified. Claims 40 and 41 have been canceled. It

is submitted that these amendments obviate this rejection, and its withdrawal is requested.

The Examiner rejected claims 2, 9 and 40-41 under 35 U.S.C. §112, second paragraph for

being indefinite. Claim 2 has been amended to specify that the derivative is a derivative of the

peptide of SEQ ID NO:5 and that the Xaa₃ refers to the peptide of SEQ ID NO:5. Claims 40 and 41

have been canceled. It is submitted that these amendments obviate this rejection, and its withdrawal

is requested.

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Amendment Dated 20 January 2004

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The Examiner rejected claim 2 under 35 U.S.C. §102(b) as being anticipated by Blom et al.

(Nucl Acids Res 26:1205-1213, 1998). In this rejection, the Examiner refers to an amino acid

sequence in Figure 6a. However, Figure 6a is a nucleic acid sequence, whereas Figure 6b is a protein

sequence. It appears that the sequence specified by the Examiner is at amino acid residues 508-518.

Although this protein sequence contains the peptide sequence specified by Examiner, it does not

describe an isolated peptide of the sequence set forth in claim 2, i.e., Xaa, is not Tyr. Furthermore,

it is submitted that the amendment of claim 2 to specify the nature of the derivative obviates this

rejection. Withdrawal of this rejection is requested.

In view of the above remarks and amendments to the claims, it is submitted that all of the

present claims satisfy the provisions of the patent statutes. Reconsideration of this application and

early notice of allowance are requested. The Examiner is invited to telephone the undersigned to

expedite allowance of this application.

Respectfully submitted,

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